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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,989

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Yukikazu Shoji

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EXAMINER

HARMON, CHRISTOPHER R

ART UNIT

PAPER NUMBER

3721

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,989	Applicant(s) SHOJI ET AL.	
	Examiner Christopher R. Harmon	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 and 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4 and 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/2/06; 4/11/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-4, 7-8, and 10-13 in the reply filed on 1/25/08 is acknowledged. The examiner contends that this is a mistake in that claim 7 depends from claim 5, which is not of the selected group. Claim 9 however depends from claim 8 and conforms to the figures selected and will be included in the elected invention. Therefore, claims 5-7 and 14-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions. Claims 1-4 and 8-13 will be treated on the merits below.

Claim Objections

2. Claims 4 and 9 are objected to. Limitations describing the invention are somewhat confusing. Claim 4 directs limitations to a "fourth belt conveyor" however a third belt conveyor has not been claimed. Claim 9 recites "and decelerates the sheet conveying speed to the sheet conveying speed of said first belt conveyor" however during the operation of the invention, as understood, there is no sheet being conveyed at this time. The speed of the second belt conveyor is slowed to match that of the first however referring to decelerating the sheet conveying speed is confusing.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-2, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Reffert (US 4,491,310).

5. Reffert discloses a folding device for the production of printed booklets (ie. downstream a printing machine, rotary or otherwise) comprising cut-off unit with cutting mechanisms/rollers 14 for receiving the web; first belt conveyor 10a; second belt conveyor 10b; and downstream processor (folding/collecting device). The first belt conveyor 10a operates at a slower speed than that of second belt conveyor 10b in order to gradually accelerate (vary the speed of) the cut sheets; see figure 1, column 7, lines 4+. Collecting/catching cylinder 1 with grippers 2, folding blades 3 and folding cylinder 4 form folded creases transversely to the conveying direction as known in the art.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9 and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Reffert (US 4,491,310).

Regarding claim 9, Reffert does not directly disclose decelerating the second belt to match the speed of the first belt, however while features of an apparatus may be recited either structurally or functionally, claims directed towards an apparatus must be distinguished from the prior art in terms of structure rather than function. See *In re Schreiber*, 128 F.3d 1473-78, 44 USPQ2d 1429-32 (Fed.Cir. 1997) and *Hewlett-*

Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed.Cir. 1990). Furthermore, a limitation directed to an intended use of an apparatus or a process requires a structural difference or a manipulative difference between the claimed invention and the prior art. See *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963); *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962); *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed.Cir. 1997).

Thus, the structural limitations of Reffert anticipate the claimed limitations. Alternatively, it is recognized that it would have been obvious to one of ordinary skill in the art at the time of the invention to accelerate and decelerate the second conveyor 10b in order to insure proper alignment of the sheets in transferring them to the processor.

1. Regarding claim 13, abutting portion 23 acts to align the front end of the sheets. It is considered positioned between the processing cylinder 1 and the second conveyor as the front portion of the second conveying belt 10b extends beyond the path of the abutment; see figure 1. Alternatively, it would have been obvious to one of ordinary skill in the art to position the stop/abutment mechanism of Reffert downstream second conveyor 10b (before processor cylinder 1) for performing the same function. Note Note: it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70; “section 103 cannot easily be satisfied by inventions that rearrange old elements in new combinations with each element performing the same function it performed in the prior art, even though the new

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combination produces a more striking result than the old ones. *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273 (1976).

8. Claims 3-4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reffert (US 4,491,310) in view of Stab (US 6,019,714).

Reffert does not directly disclose a first partial cut-off mechanism before the cut-off unit 14, however Stab discloses a folding apparatus comprising perforators 4 and cut-off cylinders 6 with conveying belt pair devices 8-9, 11-12, 16-17; 18-19; 21-22, 23-24 for decelerating the webs to conform gradually to the processing devices 28-32. Conveyor belt pairs 8-9 forward the sheets to the first cut-off device/perforator 4; see figure 1. It would have been obvious to one of ordinary skill in the art to include a first cut off device (perforator) and nip conveyor belt system as disclosed by Stab in the invention to Reffert in order to partially cut the sheets during transfer.

Regarding claim 12, Reffert provides for independent control of the various sheet feeding devices and even provides for a monitoring system for the ability to effect proper positioning of the sheets; see column 7, lines 56+. Stab discloses that each deceleration system can be independently driven; see column 2, lines 21+.

Reffert does not directly disclose the use of three separate motors. The examiner recognizes that mechanical gearing means are known and possibly used in the invention to Reffert to drive the various elements via a single motor to effect independent control. However because Reffert is silent to the means for control of the various parts, at the time the invention was made, it would have been an obvious

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matter of design choice to a person of ordinary skill in the art to include independent motors because Applicant has not disclosed that these provide an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with any operable mechanical driving means in order to effect control of the speeds of the elements as disclosed.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reffert (US 4,491,310) in view of Loebach (US 4,381,106).

Reffert does not directly disclose adjusting the phase of the grippers by a specific construction of the folding/processing cylinder. Loebach discloses a nip conveyor fed collecting/folding cylinder with adjustment capability comprising catching cylinder with grippers 50 supported by frame 124a and folding blades 52 supported by frame 124b. Adjustment disc 178 operates a phase change for the folding and gripping devices; see figures 3 and 5.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the collection/folding cylinder of Loebach in the invention to Reffert in order to vary the folding operation as desired.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Harmon whose telephone number is (571) 272-4461. The examiner can normally be reached on Monday-Friday from 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher R Harmon/
Primary Examiner, Art Unit 3721